EU-200B
Installation Manual

PLC EMS Unit

Plug into the future
Powerline Communication by Xeline

Xeline Co., Ltd.

ATTENTION

This equipment conforms with the following standard(s):

(1) EN55022

(2) EN60950-1

Table of Contents

1. Introduction 5

2. Before Installing the EU-200B 6

2.1 Package Contents 6

2.2 Prerequisites 6

2.3 Safety Precautions 7

3. Getting to Know the EU-200B 8

3.1 Front View 8

3.2 Rear View 8

3.3 Product Specifications 9

4. Installing the EU-200B 10

4.1 Connecting the LAN and Console 10

4.2 Configuring PC for Console Connection 11

4.3 Setting the IP of the EU-200B 13

5. Trouble Shooting 15

6. Appendix 16

This document is subject to change without prior notice.

Figure Index

Figure 1 PLC EMS System Configuration 5
Figure 2 EU-200B Package Contents 6
Figure 3 EU-200B Front View 8
Figure 4 EU-200B Rear View 8
Figure 5 Connecting the LAN and Console 10
Figure 6 Microsoft Hyper Terminal 11
Figure 7 Creating a New Connection 11
Figure 8 Assigning a Communication Port Number 12
Figure 9 Port Settings 12
Figure 10 Login Prompt Window 13
Figure 11 EU-200B Login 13
Figure 12 IP Configuration Example 14
Figure 13 IP Confirmation Example 14

This document is subject to change without prior notice.

1. Introduction

Powerline Communication (PLC) technology uses the existing powerline infrastructure to transfer high-speed data, eliminating the need for expensive and complicated cable installation. Because the home or office is already a 'wired network' through powerlines, Xeline's PLC system offers a cost-effective and easy-to-install Internet access solution from any electrical outlet.

Xeline's EU-200B is the EMS (Element Management System) Unit that enables the remote monitoring and management of the XPAS-200B PLC system by providing information on the status of the PLC sites.

The EU-200B monitors and manages network information that is characteristic only to PLC, such as bit loading, powerline channel information, and etc., to ensure reliable network performance.

Remote configuration and firmware upgrade are also supported through the EU-200B for efficient setup and maintenance of the PLC units in mass-usage environments.

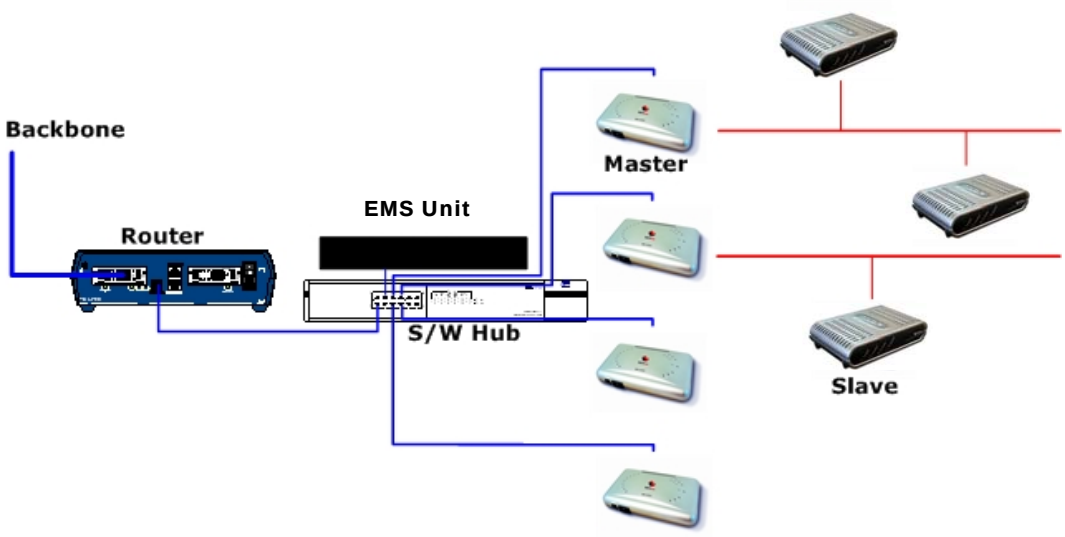


Figure 1 PLC EMS System Configuration

This document is subject to change without prior notice.

2. Before Installing the EU-200B

2.1 Package Contents

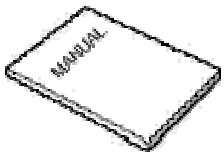
Before installing, first verify that you have all of the following items.

○EU-200B EMS Unit

○1 RJ-45 Cable (Direct)

○ 1 Console Cable (RJ-45 / RS-232)

○ 1 Power Cable



○ 1 Installation manual

Figure 2 EU-200B Package Contents

If there is a missing item or any visible damage, notify your service provider or dealer immediately.

2.2 Prerequisites

In order to install the EU-200B, you will need the following items:

(1) Power supply for the EU-200B
(2) Convenient access to the local backbone network
(3) Sufficient space to install the EU-200B
(4) 1 Laptop PC
(5) 1 Switch Hub (10base-T or higher)
(6) 1 Metal Cabinet [Recommended]

This document is subject to change without prior notice.

2.3 Safety Precautions

Please make sure to read the following guidelines before installation.

(1) Read all instructions before installing or operating the equipment. Be sure to keep this manual for further reference.
(2) Please follow all the safety precautions and other installation procedures.
(3) Do not use this equipment near heaters or other devices that emit high heat.
(4) Do not place heavy objects on top of the EU-200B.
(5) Install the EU-200B near the ISP backbone or Switch Hub. Prepare a protective metal case to house the EU-200B, backbone equipment, and Switch Hub.
(6) Avoid the following environments:
- Areas with extremely high or low temperatures
- Areas with high humidity or high risk of flooding
- Areas where sudden changes in temperature occur
- Under direct sunlight

(In outdoor configurations, install the EU-200B in a shady area away from direct sunlight.)

This document is subject to change without prior notice.

3. Getting to Know the EU-200B

3.1 Front View

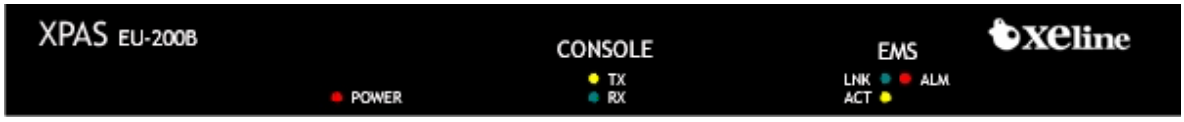


Figure 3 EU-200B Front View

POWER	Activates when power is turned on.	
CONSOLE	TX	Blinks during console data transmission from the EU-200B to the PC.
	RX	Blinks during console data transmission from the PC to the EU-200B.
EMS	LNK	Activates when the EU-200B is connected to the network.
	ACT	Blinks when EMS data is transmitted/received.
	ALM	Activates when the EU-200B is in abnormal operation.

3.2 Rear View

Figure 4 EU-200B Rear View

CONSOLE	Console port used to connect the EU-200B to the PC (RJ-45 / RS-232)
LAN	RJ-45 Ethernet port for connection to the Switch Hub
Power Switch	Switch for turning power ON/OFF.
AC Inlet	For connection to the power cable.

This document is subject to change without prior notice.

3.3 Product Specifications

Category	Specifications
Main Processor	MPC850-50MHz
Memory	32MB DRAM
Flash Memory	4MB
Boot Rom	512KB
EEPROM	2kbit [IIC Bus]
Serial Port	RS232 [1 port]
LAN Port	10 Base – TX [1 port]
Power	External Power : AC 110V - 240V, 0.4A, 50/60Hz
Dimensions	320 x 200 x 44mm (W x D x H)
Weight	1.75Kg

This document is subject to change without prior notice.

4. Installing the EU-200B

4.1 Connecting the LAN and Console

Note: The EU-200B should be located within the same broadcasting domain as the Stations to be managed.

① Connect the ISP backbone to the UPLINK port of the Switch Hub.

② Insert a RJ-45 direct cable into the LAN port of the EU-200B and connect to the LAN port of the Switch Hub.

③ Insert the RJ-45 / RS-232 cable into the CONSOLE port of the EU-200B. Connect the other end of the RJ-45 / RS-232 cable into the SERIAL port of the PC.

④ Connect the power cable to the EU-200B.

⑤ Turn on the power of the EU-200B and Switch Hub.

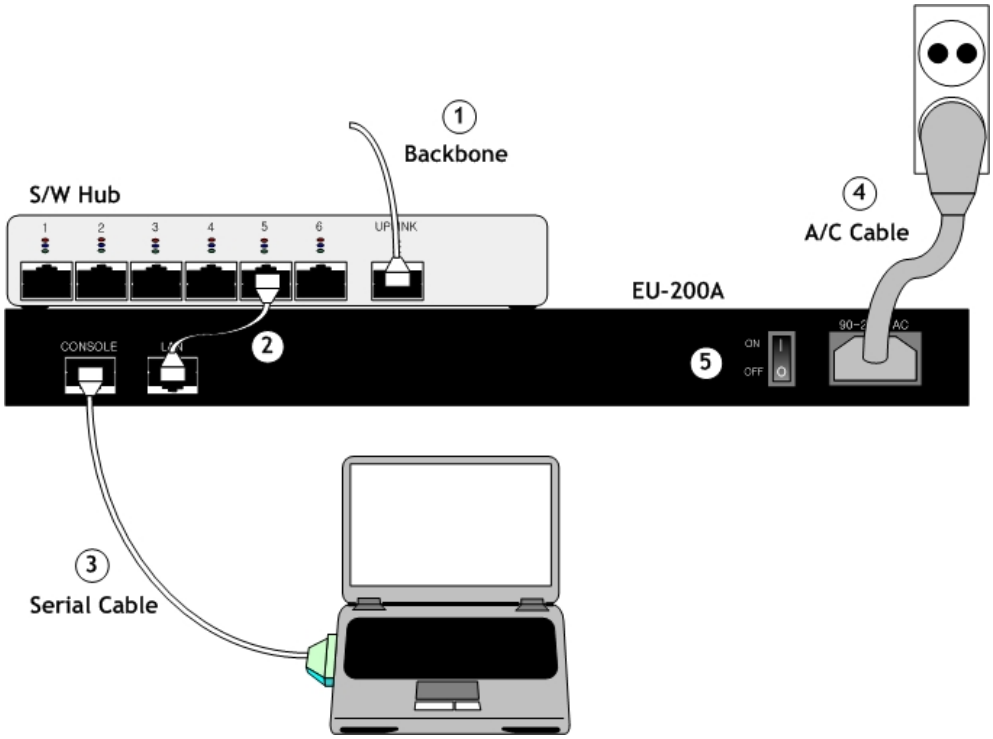


Figure 5 Connecting the LAN and Console

This document is subject to change without prior notice.

4.2 Configuring PC for Console Connection

Note: The following example is based on Microsoft Hyper Terminal. Other programs may be used according to the technician's preference.

① Open the Microsoft Hyper Terminal program.

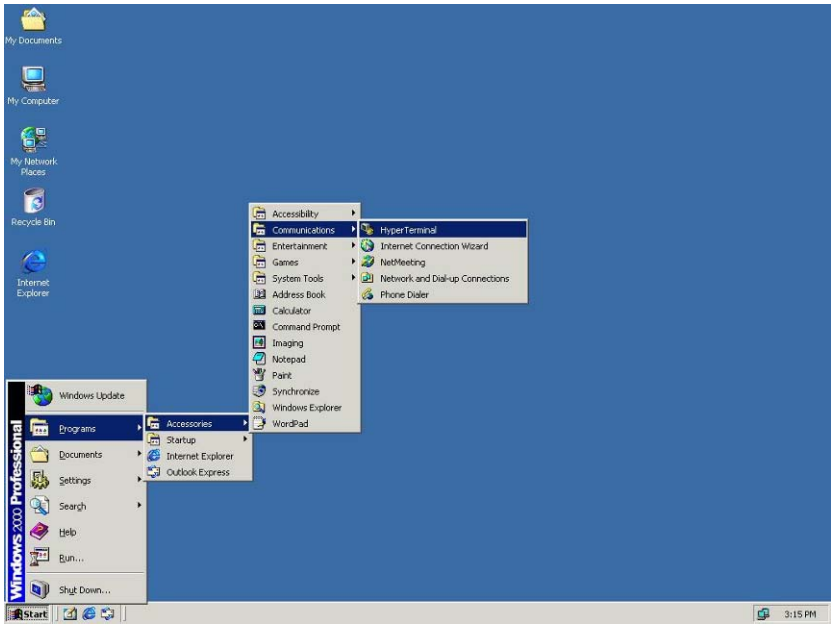


Figure 6 Microsoft Hyper Terminal

② Create a new connection. Enter a new name and select an icon.

Figure 7 Creating a New Connection

This document is subject to change without prior notice.

③ Assign a communication port number to use.

Figure 8 Assigning a Communication Port Number

④ Set the port settings as the following example:

A. Baud rate: 9600
B. Data bits: 8
C. Parity: None
D. Stop bits: 1
E. Flow control: None

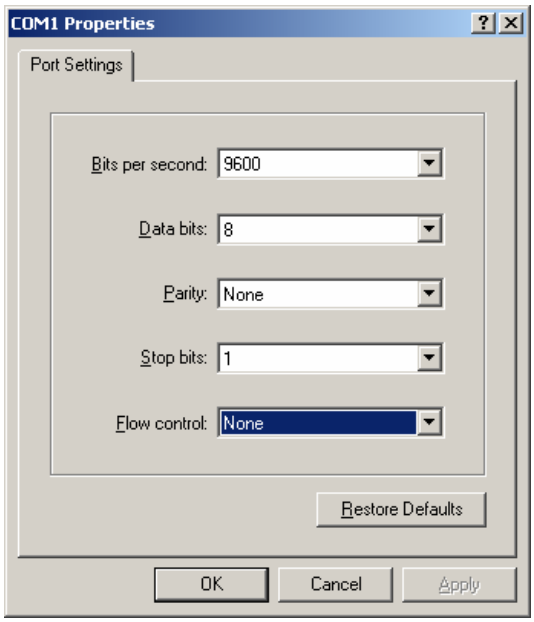


Figure 9 Port Settings

This document is subject to change without prior notice.

⑤ Turn on the power of the EU-200B.

⑥ The following login prompt will appear in the Hyper Terminal window.

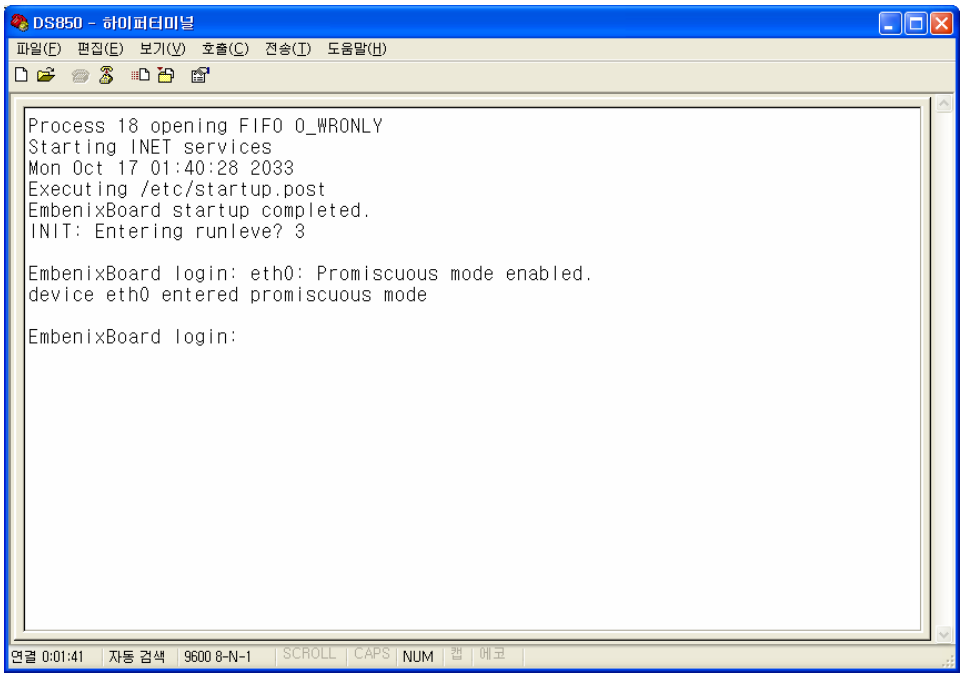

DS850 - 하이퍼터미널
파일(F) 편집(E) 보기(V) 호출(C) 전송(T) 도움말(H)
Process 18 opening FIFO O_WRONLY
Starting INET services
Mon Oct 17 01:40:28 2033
Executing /etc/startup.post
EmbenixBoard startup completed.
INIT: Entering runleve? 3
EmbenixBoard login: eth0: Promiscuous mode enabled.
device eth0 entered promiscuous mode
EmbenixBoard login:
연결 0:01:41 자동 검색 9600 8-N-1 SCROLL CAPS NUM 캡 에코

Figure 10 Login Prompt Window

4.3 Setting the IP of the EU-200B

① Use the following id and password to log into the EU-200B.

Login ID: root

Password: xeline

```
Process 18 opening FIFO O_WRONLY
Starting INET services
Mon Oct 17 01:40:28 2033
Executing /etc/startup.post
EmbenixBoard startup completed.
INIT: Entering runleve? 3

EmbenixBoard login: eth0: Promiscuous mode enabled.
device eth0 entered promiscuous mode

EmbenixBoard login: root
login[28]: root login  on `ttyS0'

EmbenixBoard#
```

Figure 11 EU-200B Login

This document is subject to change without prior notice.

② Type <ipset> to configure the IP of the EU-200B.

Note: Always use a fixed IP address. DHCP is not supported!

```
EmbenixBoard# ipset
        ##############################################
        ##  Xeline EMS Module IP Setting Program    ##
        ##############################################

        Input IP Address : 192.168.0.4

        Input Subnet Mask : 255.255.255.0

        Input Default Gateway : 192.168.0.1

        Wait a moment. Now Saving IP Address....
        Saving IP Address completed.


eth0: Promiscuous mode enabled.
SIOCADDRT: File exists
-
```

Figure 12 IP Configuration Example

③ Type <ifconfig> to confirm the changed IP of the EU-200B.

④

```
EmbenixBoard# ifconfig
eth0      Link encap:Ethernet  HWaddr 00:D0:CB:0A:4E:E0
          inet addr:192.168.0.4  Bcast:192.168.0.255  Mask:255.255.255.0
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:1019541 errors:0 dropped:0 overruns:0 frame:0
          TX packets:278418 errors:0 dropped:0 overruns:0 carrier:0
          collisions:51 txqueuelen:100
          Base address:0x3d00

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          UP LOOPBACK RUNNING  MTU:3924  Metric:1
          RX packets:72 errors:0 dropped:0 overruns:0 frame:0
          TX packets:72 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0

EmbenixBoard#
```

Figure 13 IP Confirmation Example

This document is subject to change without prior notice.

5. Trouble Shooting

Console	
Problem	**Checklist**
The POWER LED does not activate.	Check if the power cable is firmly plugged into the EU-200B and power outlet.
No information is displayed during console connection.	① Check if the RJ-45 / RS-232 cable is firmly plugged into the EU-200B and PC. ② Check if the selected serial port of the Hyper Terminal matches the actual serial port. ③ Check if the configured information such as baud rates, data bits, parity, etc. is correct.
Booting	
Problem	**Checklist**
The login screen does not appear.	Check if the ALM LED is activated.
IP Setting	
Problem	**Checklist**
IP address is not configured on EU-200B	Check for typos when configuring the IP.

If the problem is still not solved, please contact Xeline's Technical Support Center.

This document is subject to change without prior notice.

6. Appendix

● Copyright 2005 Xeline Co., Ltd. All rights reserved.

All Xeline brand product names are trademarks of Xeline Co., Ltd.

Other product and company names mentioned herein are the trademarks of their respective owners.

● Information in this document is subject to change without notice. No part of this document may be reproduced or altered in any form or by any means, electronical or mechanical, for any purpose, without the express written permission of Xeline Co., Ltd.

● **Xeline Technical Support Center**

Address: 7F. Chungjin Bldg. 475-22,
Bangbae 2 dong, Seocho-gu,
Seoul 137-819, Republic of Korea

Telephone: +82 2 598 0980

Facsimile: +82 2 598 0975

E-mail: tech_support@xeline.com

Website: http://www.xeline.com